

## RESURGENCE OF VENEREAL DISEASE\*

REPORT BY THE

COMMITTEE ON PUBLIC HEALTH  
THE NEW YORK ACADEMY OF MEDICINE

IT IS A surprising yet revealing paradox that at a time when medical science is capable of rapidly curing and eradicating two of history's destructive diseases, syphilis and gonorrhea, these plagues of mankind should be once again steadily increasing. Furthermore, not only is there this unfortunate increase in incidence in these diseases; but also recent statistics indicate changes in epidemiologic patterns, with homosexuality emerging as a more prominent factor.

In New York City, reported new cases of infectious syphilis rose\*\* from a 1955 low of 7.0 cases to a 1963 high of 45 new cases per 100,000 population. Indeed, over the recent five-year period 1958 to 1962, new cases of primary and secondary syphilis reported in the city more than tripled. Reported cases of gonorrhea rose from 143 per 100,000 in 1955 to 294 in 1963.

Moreover, the City Health Department has stated that about 25 per cent of all newly reported cases of infectious syphilis report homosexual contacts; and that in many of the remaining cases, homosexual contacts are a possibility. There is an equal likelihood of this relationship in gonorrheal infections. This lamentable increase in venereal disease and in homosexuality is not, however, merely a local phenomenon.

In New York State, exclusive of New York City, the reported rate of incidence of primary and secondary syphilis soared from a 1953 low of .9 to a 1962 high of 6.8 per 100,000 population, a sevenfold increase; in a number of cases in the two years, the rise was tenfold. Elsewhere in the nation, there also have been marked increases in venereal infections. In 1962, California reported 1,885 cases of new infectious syphilis, as against 379 in 1955, a rise of 397.4 per cent; the incidence rate rose from 2.9 per 100,000 to 11.2. In these years gonorrhea rose from 14,679 reported cases to 26,932, an increase of 83.5 per cent; incidence rates increased from 113.0 to 160.7 cases per 100,000. Los Angeles and San Francisco metropolitan areas, with only 59.8 per cent of the state's population,

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\*\*Where absolute numbers are quoted, both for New York City and for the nation, they include early latent syphilis with primary and secondary cases. Incidence rates, however, both for the City and country, include only primary and secondary syphilis. The term "infectious" syphilis is applied by the New York City Department of Health to cases of primary and secondary syphilis on the basis of positive darkfield examination or strongly positive serological reaction together with clinical evaluation. Early latent cases are considered to be potentially infectious. The term "early" syphilis includes primary, secondary, and early latent stages.

accounted for 81.3 per cent of the primary and secondary syphilis and 73.9 per cent of the gonorrhea.

Florida reported the highest rate of infectious syphilis of any state in the 12-month period ending June 1963: 32.6 cases per 100,000 population. In 1959 its rate was only 5.7. During the 1961-62 period the state had experienced a 50 per cent rise in new cases of primary and secondary syphilis. South Carolina in 1963 had the second highest rate: 29.9.

In the nation as a whole there has been a steady rise in recent years in incidence rates of venereal diseases. In a report made in 1962 by the Task Force of Citizens appointed by Surgeon General Luther Terry of the Public Health Service, the following facts were emphasized: 1) in 1961, there were 18,781 persons in the United States reported as having infectious syphilis; this is the highest incidence since, and equal to that of, 1951; 2) since 1959, each year has shown a 50 per cent increase in incidence over the previous year; and 3) between 1956 and 1960 the rise in infectious syphilis has been more than 130 per cent among teenagers.

Moreover, it has been noted that until recently the over-all national incidence rates for primary and secondary syphilis among males had remained for several decades approximately twice those for females. But, for the ages 25 to 44, the age specific rates for males had increased by 1961 to approximately four times the corresponding rates for females. A large part of this increased ratio is believed to be ascribable to homosexual contacts.

In Canada the pattern of prevalence in venereal disease over the past 18 years is somewhat different. According to tables prepared by the Pan American Sanitary Bureau of the World Health Organization, figures on Canada for reported cases of syphilis do not indicate any significant recent rise in absolute numbers of cases. Total reported cases of syphilis were reduced from 15,217 in 1946 to a median of 2,213 for the years 1954-58. In 1959, the total number of cases reported was 2,144; in 1960, 2,168; and in 1961, 2,311. Statistics for gonorrhea, however, present a different picture. From 26,286 cases in 1946, prevalence was gradually reduced to 14,300 in 1955. In 1958 there was a rise to 14,733 total cases; in 1959 there were 14,826; and in 1960, 15,688. In 1961 there were 16,463 total reported cases of gonorrhea. According to these figures, Canada's present problem seems to be a rising incidence in gonorrheal infections.

This resurgence of incidence in venereal diseases is not limited to the North American continent. The World Health Organization estimates that 60,000,000 new cases of gonorrhea occur annually throughout the world. Of the regions reporting to the WHO for the decade 1950-60 (105 nations), 19 out of 20 European nations; 23 out of 29 African nations; 6 out of 12 Eastern Mediterranean nations; and 15 out of 21 countries in the Americas registered an increased rate in incidence of primary and secondary syphilis during 1957-60.

Of 12 nations studied by the WHO, seven showed an increase of venereal disease among teenagers. In Colombia, teenagers accounted for 54.1 per cent of new cases of syphilis and 51.7 per cent of gonorrhea; in Czechoslovakia, the

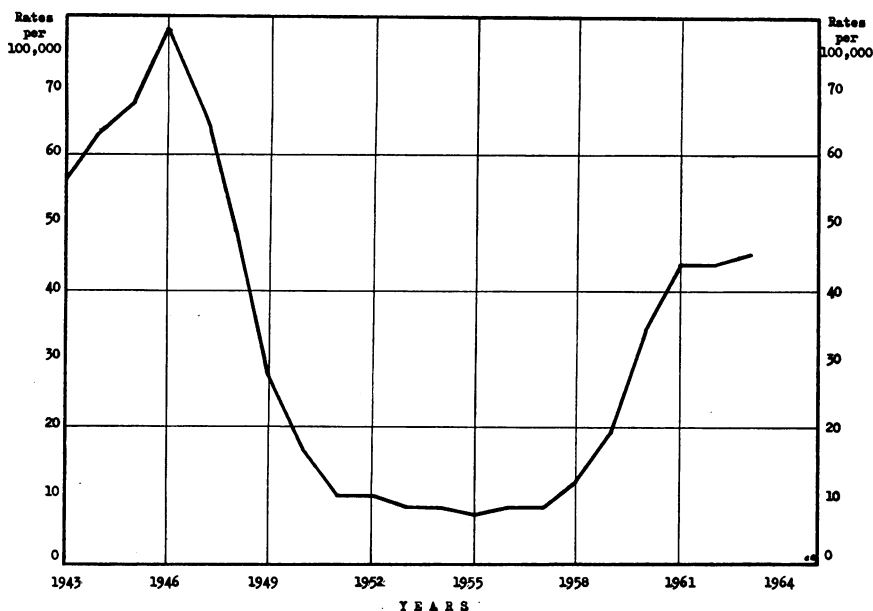


Fig. 1. New cases of primary and secondary syphilis reported in New York City, 1943-1963. Incidence rate per 100,000 population. Reproduced by courtesy of Department of Health, City of New York, Division of Social Hygiene.

15-19 age group made up one-third of the newly infected cases of syphilis. Similarly, Britain's greatest venereal disease problem seems to be the increase of gonorrhea in young people. In male patients aged 15-19, there was a 67.3 per cent increase from 1957 to 1960; in female patients of the same age group it was 65.4 per cent.

In commenting on the increased rate at which *T. pallidum* is being spread internationally, the American Social Health Association has said that in 1960 more than 30,000 contact report forms were referred between state health departments in the U.S. and 52 foreign countries, an interchange of epidemiologic information which included such distant places as China, Africa, and Argentina.

#### RATES BEFORE AND AFTER AVAILABILITY OF ANTIBIOTIC

Plainly there has been a world-wide upswing in the incidence of venereal disease. At first glance this international resurgence is both arresting and puzzling since it occurs at a time when medical science is blessed with nontoxic antibiotics capable of a rapid cure, especially of syphilis. In order to see the situation clearly and to understand what has happened, it is helpful to review the rates of incidence over the past two decades, taking as a starting point the period before the

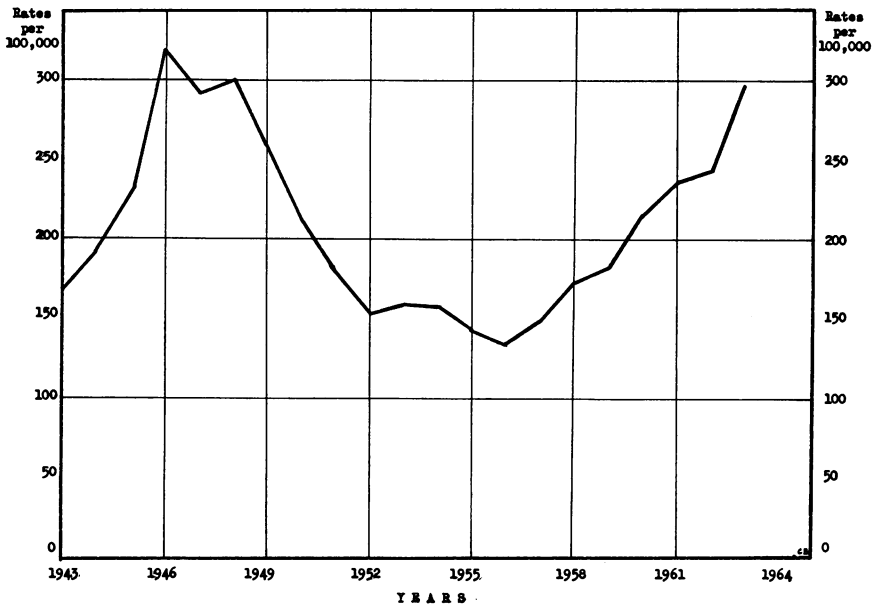


Fig. 2. New cases of gonorrhea reported in New York City, 1943-1963. Incidence rates per 100,000 population. Reproduced by courtesy of Department of Health, City of New York, Division of Social Hygiene.

"wonder drugs." Prior to World War II, the treatment for early syphilis was prolonged and complicated. It usually extended over a period of a year with many patients defaulting and many others being discontinued because of toxic effects related to the use of arsenic and bismuth.

During this period incidence rates were high. In New York City in 1943 there were 56 cases of primary and secondary syphilis per 100,000 population; the gonorrheal infection rate was 171. A peak was reached in 1946 when the rate of newly reported cases of infectious syphilis rose to 78 out of 100,000 population (Figure 1), and gonorrhea went up to 315. In absolute numbers the cases of syphilis reported in 1943 totaled 25,878, of which 9,803 were early cases. In 1946, the total was 26,765, of which 13,401 were in early stages. Nationally, in 1943, there were 518,094 total reported cases of syphilis; in 1946 there were 385,524, a slight decline in total cases.

In 1943, however, four syphilitic sailors had been successfully treated with penicillin by Dr. John F. Mahoney and his colleagues. Penicillin—capable of curing syphilis in one week's time—came to be widely used after World War II, and the pool of infectious cases of syphilis was readily reduced.

Case rates diminished steadily until 1955 and then leveled off. Reported for New York City in 1955 were seven new cases of infectious syphilis per 100,000

population and 143 cases of gonorrhea. The total of reported cases was 18,056, of which 2,313 were early cases. For primary and secondary syphilis, national figures showed a new low rate of four cases per 100,000; reported cases totaled 122,392.

The danger signals began to appear in 1958. Whereas the figure 13,082 for total cases of syphilis reported for that year to the New York City Health Department was actually the lowest to that date, there was a slight rise in new cases of early syphilis, from 2,191 (in 1957) to 2,487. The number of reported cases of new early syphilis did not go back down in 1959, but continued upward to 3,134. The incidence rate in 1958 had been 12 cases per 100,000, but in 1959 it was 19 and in 1960 it reached 33.

Similarly, statistics were revealing a rising rate of incidence of new infectious syphilis in the nation. In 1958 it had been 3.9 cases per 100,000; in 1959 it was 4.7; in 1960, 7; in 1961, 10.4, and in 1962 it was 10.9. Total reported cases of syphilis in the nation during that period were: 120,766 in 1959, 122,003 in 1960, 124,658 in 1961, and 126,245 in 1962.

New York City, however, with 4.3 per cent of the nation's population, has 16 per cent of the country's reported infectious syphilis. In 1962 the rate in New York City for new primary and secondary syphilis had reached 43 per 100,000; gonorrheal infections had risen to 243. The 1963 rates were no exception; they kept climbing: for primary and secondary syphilis, 45 new cases per 100,000. The rate for gonorrhea (Figure 2) was 294. These rates are as high as those in the prepenicillin years.

From this rapidly rising incidence it was obvious that an epidemic of infectious syphilis was occurring. As the compilers and keepers of the records, the public health officials were alerted early to this development. But for the most part, the public and medical profession remained unaware of it; or knowing it, were undisturbed and unmoved.

#### PREVIOUS ACTIONS BY THIS COMMITTEE

The Committee on Public Health's deliberations on the many problems surrounding the control of venereal disease date back to 1919. In that year a conference was held under the auspices of the Academy in which the Committee reaffirmed its stand in favor of requiring the reporting of venereal disease cases to the Health Department. This action was in accord with the developments of that period. During World War I serological tests and treatment had been conducted on a mass scale.

In 1936 Surgeon General Parran of the U.S. Public Health Service began an intensive health education campaign to remove the veil of secrecy from venereal disease and to bring it into the open. This step greatly enhanced preventive education, case-finding, and treatment.

In that same year the Committee combined and integrated its many suggestions into a comprehensive program which was submitted to the health authorities. Briefly, this plan called for more hospital beds for venereal disease patients, in-

struction of the general practitioner in methods of therapy, the distribution of free arsenicals, the reporting of all new cases by physicians, the assignment of public health nurses for follow-up of patients, the setting of standards in venereal disease clinics, detection and treatment of prenatal syphilis, and for treatment and follow-up of prostitutes and vagrants.

A number of studies were made concerning the arrangement and treatment of prostitutes; in the course of this effort, diagnostic criteria for gonorrhea and syphilis in women were formulated for the guidance of the legal authorities. Moreover, in 1939, the Director of the Bureau of Social Hygiene of the Department of Health reported that all of the essentials in the Committee's 1935 program had been followed.

During the early forties the Committee advised the Department of Health on premarital examinations, analyzed a plan for an educational campaign on venereal disease among the Negro population of New York City, and recommended that venereal disease studies be included in health education in the schools, though not as special classes.

In 1943 Mahoney announced the successful treatment of syphilis with penicillin. With this simpler, shorter, and more efficacious treatment, public health agencies conducted a vigorous program against syphilis. It included mass serological testing, interviewing and treatment of patients, investigation of contacts, and referral for treatment.

In the Committee's long record of deliberations on syphilis and gonorrhea, what stands out vividly and perhaps prophetically as a point most timely for today and any day is its reiteration of the necessity for education of the general public, for interest by and instruction of the physician, and for complete reporting of the index case and extensive follow-up of contacts.

#### REASONS FOR RESURGENCE

Once again the Committee on Public Health has returned to an epidemic foe which was thought to be conquered. In its accustomed approach, the Committee has sought to find the reasons for the resurgence.

*Social and Environmental.* One of the most serious factors in the recent increase of venereal disease is its rapid rise among teenagers. Greater promiscuity in young people has its roots in the relaxing of moral and cultural values in present-day society. Contributing to promiscuity are some features of the existing mores. For one thing, there is almost a national preoccupation with sex although much of it is vicarious, artificial, and rather superficial make-believe. It has been elevated to a status symbol for glamor, success, and happiness. This attitude is encouraged, kept alive, and reinforced by movies and advertisements. But it receives its most intensive promulgation and misuse from a highly organized, nation-wide campaign of salacious literature directed at youth. As targets the teenagers are exposed to or bombarded with a barrage of sexually stimulating literature.

Deterioration in moral tone is ultimately traceable to breakdown in the home and in family life. Changes in customs have lifted old restrictions and brought greater latitude and independence in the conduct of youth. With the virtual disappearance of the chaperon went the last vestige of watchfulness and supervision. Entertainment in the home with its tendency to exercise an inhibitory influence gave way to the automobile age with parking miles away from home in an unfrequented spot. The final touch is the supposed fringe benefit of the feminist movement: the fairness of a single standard for sexual behavior.

Another social development also conduces to promiscuity. With increasing urbanization youth is drawn to metropolitan areas. There they confront loneliness and anonymity. Some succumb to lowering of their standards.

Several things are certain: there has been a spectacular increase recently in unwed mothers, illegitimate children, and venereal disease. In detail how this came about can only be surmised. But it is fair to associate these increases with the observation that, in general, promiscuity is easier.

There is a new and troublesome aspect to the current outbreak of venereal disease. A surprising, rather unusual, element has emerged. Whereas the World War II resurgence of venereal disease was attributed to disorganization and demoralization of the population by the draft, by army camps, and by the mushrooming of industrial centers, all of which allowed professional female prostitution to flourish, the epidemiologic pattern of the recent increase has suggested that homosexuality is a principal factor, including the professional male prostitute.

Linked with this development is the evident concerted attempt of sexual pervers to seek recognition on the social scene. Much of the salacious literature definitely is aimed at promoting homosexuality, particularly among the young. This present attempt is, at least, to elevate perversion to the plane of respectability and to gain for it acceptability as a way of life; at most, actually to glorify it as a desirable practice. Let it be stated flatly that homosexuality *per se* is a disease. Here the Committee's concern with it was its transmission of venereal infection. It is troublesome because it presents some formidable problems in epidemiological control.

*Biological.* Another possible reason for the increased incidence of venereal disease was likewise explored; namely, the immunity susceptibility factor related to the use of penicillin. Prior to penicillin therapy, many promiscuous people had syphilis, but were undergoing treatment which lasted for more than a year and which prevented them from continuing the spread of the disease. During this time promiscuity was continuing without the hazard of syphilis.

With the introduction of penicillin, which produced a rapid cure, these promiscuous people were capable not only of contracting the disease again, but, more importantly, of spreading it to others. However, Health Department officials report that the reinfection rate itself is not so great as to be responsible for any significant part of the increase in incidence. Apparently susceptibility may be dismissed as a major factor in the rising occurrence of venereal infection.

Neither is there any evidence that the organism has become more virulent;

nor that it has developed any significant resistance to antibiotics, especially from increased use of them. No change in the history, symptoms, and natural course of syphilis in humans has been unassailably verified.

#### PROGRAM FOR CONTROL OF VENEREAL DISEASE

In seeking an explanation for the rising incidence, it is necessary to examine the funds, program, and activities that ordinarily would be expected to keep venereal disease under control. The aims of such programs are threefold: 1) to find and treat all persons with infectious venereal disease to stop the progression of the disease; 2) to prevent the spread of the disease to others; 3) to prevent infection by education.

After 1948 penicillin therapy allowed the majority of the venereal disease cases to pass from public clinics into the private physician's office. A well-conducted venereal disease control program became essentially a partnership between the official health department, voluntary agencies such as hospitals, the practicing physicians, and the public. Elements in the program are: 1) case-finding which depends upon the cooperation of the physician, available laboratory services, adequate reporting by laboratory and physician; 2) interviewing patients and investigating contacts and suspects which depends upon cooperation and permission of physician and availability of specially trained agents for the interviewing.

In this partnership there is a division of duties. By law the functions of the Health Department in the program are: to operate clinics for diagnosis and treatment; to keep records; to maintain or furnish laboratory services; to provide drugs for treatment; to conduct the case interview; and the investigation of contacts—suspects, some of which are out-of-state; referral of contacts and suspects to the physician; health education for prevention.

The major functions of the physician are: examining, diagnosing, treating, reporting, granting permission for interview, and providing medical follow-up.

Because of its institutional character the hospital plays a quite different and unique role in the control program. It is admirably suited for case detection by routine serological testing of admissions and outpatients. It usually maintains a laboratory with services. As a work place for physicians and as a gathering place for the ailing, it can contribute materially to clinical diagnosis of venereal disease.

Perhaps the public's function is less exact and explicit than the others, but it can be no less important. To keep informed, to accept official advice, take precautions, and seek protection: these are the citizen's responsibilities. But mainly the public can perform its function through a show of interest, cooperation, and support of the control program.

In the dovetailed procedure of this partnership, there can be inadequacy, curtailment or breakdown by one or another partner at any step of the way, which will impair the effectiveness of the whole.

*Curtailement of Funds.* A hard blow was dealt to the eradication program when, in 1950, Federal appropriations were cut back from a high of 11 cents to only 3 cents per capita. According to Dr. William J. Brown of the U.S. Gov-

ernment's Communicable Disease Center: "As a program for the control of a disease approaches the end point, meaning eradication, it is not the disease but the program that is the more likely to be eradicated."

State and municipal funds, as well as federal, were drastically reduced when syphilis appeared to be on its way out. This reduction seriously curtailed activity in a most crucial area: detection and follow-up of patients. Reduction of case work contributed a large part to the growth of unknown cases of infectious syphilis throughout the nation.

*Curtailment of Education Programs.* Since the advent of penicillin and greatly improved treatment for venereal disease, the public as well as the administration became apathetic: syphilis and gonorrhea no longer seemed a threat. Educational programs were forgotten and young people growing up after the anti-venereal disease campaigns of World War II were ignorant of the specifics of the disease as well as how it was spread. Thus ignorance, apathy, and over-optimism did their share to increase the reservoir of unknown infections.

*Curtailment of Case-Finding.* Every case of early syphilis is a part of a small epidemic; in order to stop the spread of the disease, every individual involved must be located and treated. But in order for the Health Department to function in this highly specialized field of follow-up care, it is imperative that the initial case of venereal disease be reported. Much of the knowledge concerning new cases is derived from positive reports of serological tests performed at laboratories and hospitals in the city. Presently, however, this aspect of case-finding is being hampered by a combination of deficiencies: the cessation of routine serologies in hospitals, the failure of the hospital to affix responsibility for a laboratory test to one definite physician, the present failure of private physicians in making use of Health Department laboratories, and the seeming difficulty in practitioners' obtaining darkfield examinations.

A decade ago, when syphilis was at its peak, hospitals performed serologies routinely. But as incidence in the disease dropped off, the practice of doing a routine VDRL decreased as well. According to a 1962 survey by the American Hospital Association of 6,424 respondent hospitals, only 3,699 conducted serological tests for syphilis routinely on adult inpatients; only 5,047 reported all reactive serological tests for syphilis to the Health Departments.

Similarly, case-finding is obstructed by the lack of cooperation from some hospital laboratories as to which physician shall be responsible for a given laboratory report and follow-up to the Health Department with the particulars of the case. This lack of responsibility makes it difficult for health officials to check out a report and trace the suspected individuals as to treatment or contacts.

The failure of private physicians to make use of Health Department facilities was reported in a survey conducted by the Columbia University School of Public Health. Covering the period of practice for 1960 and the first nine months of 1961, this study revealed that, out of 6,649 respondent physicians in solo practice, 68 per cent utilize laboratories other than the Health Department for venereal tests. These data point up the great importance of continued surveillance of pri-

vate clinical laboratories so that all positive results of tests for venereal disease are promptly reported.

This same study showed that at least 30 per cent of the respondent physicians acknowledged they had difficulty in obtaining darkfield examinations. This observation accorded with the finding in the American Hospital Association survey that out of 6,424 respondent hospitals, only 1,917 performed darkfield examinations.

*Noncooperation in Reporting.* According to public health authorities, however, by far the most important lag in the tracing and treating of suspects is the failure of private physicians to report their cases of early syphilis and gonorrhea, or, if reporting, to allow interviewing of the patient for his sex partners.

The need for reporting by the private physician dates back to the period 1945 through 1948 in which absorption-delaying vehicles were successfully developed which opened the door for outpatient penicillin therapy for syphilis. For the first time, this disease could be treated with relative safety, not only by specialists in the field, but by qualified practitioners of medicine as well. In this way, a large part of the treatment of syphilis and gonorrhea was shifted from public facilities to the private physician's office.

In 1962 the American Social Health Association, through the cooperation of the American Medical Association, the American Osteopathic Association, and the National Medical Association, conducted a mail survey of all physicians in general practice and in medical specialties in the United States. The survey questionnaire was a three-question form requesting the number of new cases of primary and secondary syphilis, of other stages of syphilis, and of gonorrhea treated in a three-month period from April 1 through June 20, 1962.

Of the 184,500 physicians contacted, a total of 131,245 responded—a rate of 71 per cent. Of these respondents, 34 per cent indicated they had treated some form of venereal disease during the three-month study period. The percentage of physicians treating venereal disease was greatest among the general practitioner group: 57 per cent, while only 21 per cent of the specialists reported having patients with venereal disease.

The physicians responding to the questionnaire indicated that they had treated 13,930 patients with infectious syphilis, but only 1,576 cases had been reported to the State Health Departments during the same three-month period. They treated 34,069 patients in other stages of syphilis and 12,785 of these were reported. Of the 156,515 cases of gonorrhea treated, only 16,907 were reported to the Health Department.

These figures indicate that only 11.3 per cent of the cases of infectious syphilis, 37.5 per cent of the cases of other syphilis, and 10.8 per cent of the cases of gonorrhea treated by private physicians during the three-month survey period were reported to the Health Departments.

Replies to the survey questionnaire indicated that private physicians were treating, by conservative estimate, 76 per cent of the venereal disease cases in the U.S. Thus less than one-fourth of the venereal disease cases are being treated in

public health clinics and institutions where adequate follow-up procedures concerning sexual contacts are in operation.

It is known that the typical private patient with infectious syphilis will have had sexual contact with two persons other than the source contact since the beginning of his incubation period. One of every four private patients has had one or more contacts with persons living in other states. Often hundreds of miles separate the patient and the contact. Yet, according to the ASHA survey, more than 12,000 cases of infectious syphilis treated by some 6,000 physicians were not reported to state or local health officers during the three-month study period.

From previous case-finding experience, it is estimated that if those 6,000 physicians had reported all of their infectious cases and allowed them to be interviewed, 5,000 additional cases of early syphilis would have been promptly identified.

According to the ASHA study, the estimated incidence of infectious syphilis in the United States in the fiscal year 1962 was three and one-half times the 20,084 cases actually reported to health departments, which would equal 68,977 cases; the estimated incidence of gonorrhea would adjust to 817,713, as compared with the 260,468 cases which were reported. If these estimates are close to the true figures, a simple calculation shows that the health departments of the nation were not operative in the occurrence of approximately 48,893 cases of infectious syphilis and 557,245 cases of gonorrhea.

If contacts from these unknown cases were to be approximated according to public health experience in interviewing patients, which revealed an average of 4.1 suspects per case in 1961, it would reveal that the usefulness of public health detection and follow-up programs was lost on about 2,485,166 individuals. It is appalling to think of the number of actual cases of infectious syphilis and gonorrhea which could arise from such a reservoir of undetected suspects.

Thus statistics gleaned from both the Columbia and the ASHA studies give some idea of the magnitude of the reservoir of infectious syphilis and gonorrhea which has developed nationally and locally, to a great extent because of lack of cooperation of the private physician in reporting his venereal disease cases to the health department.

*Follow-up by Private Practitioner.* With 76 per cent of all venereal disease cases in the nation being treated by the private physician, of which 88.7 per cent of the infectious syphilis and 89.2 per cent of the gonorrhea cases are unreported, it is important to know whether or not the practitioner attempts any follow-up care on his own.

In this regard, the authors of the national ASHA study conclude: "Epidemiological follow-up is extremely time-consuming, and the physician and his staff rarely have the time required for this type of activity. Professionally trained and experienced specialists are needed for this purpose." "It is probable," they continue, "that relatively little epidemiological follow-up is being performed by physicians in private practice."

A rough idea of the extent of the detection work being carried out on the

whole by private physicians may be gained from the percentages revealed by the Columbia University study in New York City.

According to this survey, from 1,828 responses to the question about bringing the patient's regular sex partner or spouse in for examination and treatment, 32 per cent of New York physicians said they "always" did and 28 per cent said "often." When asked whether they try to obtain names and addresses of other sex contacts, out of 1,864 responses, 55 per cent said "always" and 19 per cent said "often." In answer to whether or not they attempted examination and treatment of any of these partners, from 1,734 answers, 9 per cent said "always" and 15 per cent said "often." These figures reveal the practitioners' inadequacies in follow-up to identify, examine, and treat contacts.

*Reluctance to Allow Interview.* According to the study, among the 1,960 physicians who had stated "yes" to the treatment of venereal diseases, 23 per cent said they made use of the health department contact interviewing service, 23 per cent said they used the health department to assist in follow-up of delinquent patients, 11 per cent availed themselves of free drugs for treatment, 20 per cent made use of the medical consultation services, and 23 per cent utilized the available venereal disease literature.

Whereas the Columbia study indicated that a maximum of 60 per cent of infectious syphilis and 35 per cent of gonorrhea seen by private physicians is reported to the New York City Health Department, other estimates set a much lower figure. Using data from the combined ASHA-AMA survey, the New York City Department of Health prepared a breakdown of the epidemiological coverage of infectious syphilis here in 1962. These figures revealed that only 39.6 per cent of the primary syphilis cases seen by private physicians were reported, leaving follow-up coverage doubtful for 2,130 cases.

Out of 1,447 reported cases, 776 were interviewed by the Health Department. From the interviews 1,725 sexual contacts were revealed and 398 cases of syphilis were uncovered and treated. These figures indicate emphatically that thorough reporting of patients with adequate follow-up and detection of sexual contacts results in an appreciable number of new cases.

In contrast, 671 cases were not interviewed due to the reluctance of the physician. This left an estimated untapped reservoir from reported and unreported cases, of 6,643 sexual contacts. The potential number of unknown cases of infectious syphilis which might arise from these contacts was estimated at 1,531.

Each case of infectious syphilis that is not identified, reported, and processed epidemiologically does four things to the community: 1) it contributes to the spread of the disease; 2) it increases the existing infectious syphilis reservoir; 3) it eventually results in a higher attack rate in the population; and 4) it positively prevents any possibility for the control of syphilis.

It is not too much to say that the effectiveness of a control program against syphilis hinges on the attitude, performance, and cooperation of the practicing physician. The figures show the practitioners' considerable reluctance—even when

reporting—to allow the Health Department to interview their patients for sexual contacts.

#### DISCUSSION

Aroused by the world-wide resurgence in venereal disease, representatives from the United States and 44 other nations joined, in 1962, to convene a *World Forum on Syphilis and Other Treponematoses* in Washington. The participants concluded that the rising rates of venereal infections could be attributed to the lack of information about the disease among the general public; lack of professional awareness of the problem; decreased fear of venereal disease; and significant changes in social values. Resurgence of venereal disease seemed to be the result of a combination of circumstances, including a breakdown in control. Participants in the forum agreed, however, that the basic services and technics required to conduct an effective control program were available.

In this country, a task force set up to evaluate the control of syphilis reported that year to the Surgeon General of the U. S. Public Health Service, in a publication entitled "The Eradication of Syphilis." It found that there was a chain reaction in the spread of syphilis infection, especially among teenagers; that the actual number of cases far outnumbered those reported—the difference represented the margin of failure in the venereal disease control effort; that effective technics of control and therapy to stop the spread of syphilis were available but not adequately applied; and that unless an intensified program was promptly started, the current increase in spread might be accelerated.

It was the task force's belief that any program that attempts to control the spread of syphilis must rely heavily on epidemiologic technics. It noted two major weaknesses in the existing program: 1) a large proportion of laboratories, particularly private, do not report reactive serologic tests for syphilis to the health departments. It is estimated that 350,000 persons with positive serology were receiving no attention, among them 3,500 with infectious syphilis; 2) routine admission blood testing for syphilis is no longer required for accreditation of a hospital. Often those hospitals giving routine serologic tests release patients without reports reaching the health departments.

The task force reached additional conclusions: the routine screening program should be continued. Physicians should be encouraged to report to the health department; and the health department should be encouraged to report back to physicians on the results of case finding. The Public Health Service should study interview methods in order to improve them and increase their productivity. The physician must have more participation, an enlarged role, and increased responsibility in syphilis control; he must also be helped to assume this responsibility.

It was further stated by the task force that new products and technics will not alone prevent syphilis. These activities must be supported by education—public and professional. Public education, it said, should be related to family life and living and designed to influence the behavior of people.

Epitomizing its views the task force pointed out that eradication of syphilis requires an intensive and aggressive program based in two general areas of activity: 1) epidemiology; 2) education.

In 1936 Parran had reported the recommendations of a National Conference on Venereal Disease Control: 1) find, report, and interview for sexual contacts every early case of syphilis; 2) treat every case; 3) align health agencies and private physicians in a united front.

The task force of 1962 recommended:

1. Enlisting the aid of private physicians.
2. Reporting of positive serologies by all laboratories.
3. Intensification of case interview and contact investigation.
4. Development of education program—public and professional.
5. Expanded research into immunology, therapy, laboratory identification, and sex behavior of adolescents.
6. Continued support of control program, regardless of any decrease.

The 1964 Congressional appropriation to the Public Health Service Venereal Disease Control Program will be \$9,588,000. This is the amount included in the appropriation bill now before the Joint Committee of the House and Senate as recommended by both the Senate and the House Subcommittees on appropriations for Labor, Department of Health, Education and Welfare. The 1964 appropriations will almost meet the recommendations of the Joint Statement and the Surgeon General's task force, which urged that \$10,000,000 be made available for venereal disease control in 1964. The net increase in funds available for 1964 is actually \$1,994,000.

It was noted earlier that some physicians reported difficulty in obtaining dark-field examinations. To help overcome this difficulty the New York City Health Department plans to arrange to have technicians on call to perform these tests in the physicians' offices. This service will be made available in all boroughs and during hours when most of the laboratories and clinics are closed. It was suggested, however, that this service should not carry the complete load and that, in addition, hospital and other laboratory technicians should be trained to perform this examination.

In 1932 Parran said: "Syphilis can never be controlled while more than one-half of the cases are not recognized for more than one year after onset." Soon case-finding was the major weapon in the control of syphilis.

With the demonstration of the therapeutic effectiveness and ease of administration of penicillin, much of the treatment shifted from public clinic to the doctor's office. Pointing out the consequences of this turn in events, Kampmeier has asserted that it is this change in place of treatment and in responsibility for management of syphilis that has led to a new and different relationship of professional personnel in the control program and to the present difficulties. In a program for eradication of syphilis, the private practitioner has become the pivotal figure who must assume and carry out effectively his clinical responsibility and at the same time cooperate with the health department.

Unfortunately the evidence indicates the shortcomings of the practitioner in performing this role. His record is one of inadequacy in reporting, case-interview, contact investigation, and follow-up. Kampmeier lists the excuses usually given by physicians for their remissness: too busy; privilege of private matter in doctor-patient relationship; possible jeopardy to patient's family by investigation of contacts.

But believing that the real reasons are quite different, he has set forth his own list of explanations: 1) because of inadequate undergraduate instruction or mental laziness, no thought is given to the epidemiology of syphilis; 2) hesitancy and embarrassment in discussing sexual matters with patients; 3) history of homosexuality or sexual perversion is never taken; and 4) significance of investigation of contacts is not appreciated by a number in the profession. He has tersely characterized the reasons for physicians' less than satisfactory performance as ignorance compounded by irresponsibility. Whatever the reasons, the shortcomings have effectively thwarted the necessary epidemiological study.

With due consideration of all the facts contributing to the resurgence of venereal disease, the Committee on Public Health concluded that it would be most effective in its area of competence: medical practice and community health. It did not underrate the very great importance of the other factors adding to the increase: the breakdown of the home, the changing mores, and the shift in moral values that encourage promiscuity. Rather, the Committee believed that it could be most useful in helping to improve the control over the spread of the disease. Specifically, it could expound the necessary epidemiological approach to eradication of venereal disease; the important place that the private physician now plays in the system; and the interdependence of health departments and private physicians in the effort to stop the spread.

The Committee concluded that the present large reservoir of venereal disease must be reduced if the spread is to be halted. This reduction can be brought about only if case finding is allowed to become more comprehensive and complete than it is at present. Most public health authorities agree that the greatest need is an enlarged and revamped control program.

It has been pointed out that penicillin therapy allowed the majority of cases of venereal disease to pass from the public clinics into the private physicians' offices, where many of them became lost to epidemiological coverage and thus created this reservoir of hidden infectious cases. This observation is supported by the figures which demonstrate the private physicians' lack of cooperation both in reporting cases of venereal disease and in allowing cases to be interviewed for subsequent investigation of contacts. The obvious and crucial question is: Why is the private physician so reluctant to respond when his cooperation is so vitally needed? The Committee focused its deliberations particularly upon this question, for it was believed to be the area in which it might be most helpful.

There is an order and rank to reasons; some are more basic than others. One explanation for the physicians' inadequate performance in managing venereal disease is said to be their notion of the inviolability of the doctor-patient rela-

tionship. It was postulated that many physicians, in satisfying their responsibility to their patients, lost sight of their over-all responsibility to the community. They seem to feel that confidentiality between themselves and the patient is to be respected even at the expense of the public health; and that once their obligation to the patient is satisfied, their responsibility is ended.

The belief, however, that information concerning venereal disease is privileged is mistaken. The reporting of these highly communicable diseases is very specifically required by the City Health Code, and failure to comply with the Code is a misdemeanor. Because of the leniency of the Department of Health, many physicians may not be aware they are breaking the law by failure to report. But health officials make it plain that they much prefer to secure the cooperation of the physician in conquering an obvious epidemic rather than to antagonize him by involvement in legal tangles. Furthermore, physicians may not realize that the information being desired by the Health Department is kept strictly confidential.

Actually, this argument of confidentiality may be reduced to a more basic reason: a form of ignorance. In this instance it is ignorance of the higher authority of the larger community interest and of the law based upon it. As a consequence there is ignorance of obligation to the community.

In considering reasons for dereliction in duty, another factor not overlooked is the large homosexual element in the present outbreak of venereal disease. This development is new for both clinician and epidemiologist, and presents some difficulties. A most common source of diagnostic error, for example, is being caused by the element of homosexuality in that the location of the chancre may be largely unexpected. Furthermore, tracing the homosexual is complicated because society's attitude towards him often deters the physician from reporting to the Health Department in order to protect his patient.

Society was once more certain of its attitude about homosexuality: it registered disgust, ridicule, or pity. But changing mores and moral values may have altered attitudes, or at least weakened former feelings. Furthermore, the victims have put on an organized and aggressive action to gain at least tolerance, hopefully to achieve acceptance of its respectability, and most ambitiously to have it recognized as a noble way of life. If society is uncertain or less contemptuous about such perverts, the physician must certainly be aware of the conflicting pulls. And homosexuality is far from receiving approbation, or even acceptance. Generally it is placed on a much lower plane than heterosexual promiscuity. Adverse public opinion, even uncertainty of opinion, is a deterrent to the physician's revealing the identity of those patients afflicted with this disorder. Furthermore, a physician accepting one homosexual as a patient may find himself with a practice comprising largely homosexuals. Apart from protecting his patients, the physician may desire to protect himself. With a practice containing many homosexuals, revealing their identity and other pertinent facts about them also reveals the character of the physician's practice.

All this is a variation of the previous reasoning about confidentiality and the same comments apply to it. The physician must be assured that the informa-

tion which he provides will be kept confidential by official departments and that the larger interest of the community takes precedence over personal considerations of either the patient or himself.

One of the basic reasons ascribed to the physician's reluctance in handling of venereal disease is economic. It is linked closely to maintaining confidentiality with the patient. It was generally agreed that physicians may be naturally fearful of losing patients by reporting. But it was the consensus that in the long run this should not prove to be a crucial item. Economic motivation can give way to other incentives. Besides it would not even be operable once it were agreed that *all* physicians would fulfill their responsibilities to the community. If the profession is awakened to the growing menace of venereal disease and understands its duty, it should become a routine matter for the physician to report on his cases and allow them to be interviewed.

One factor studied by the Committee was the length of the report form used by the Health Department. The criticism was made that the form is too long and detailed, that physicians really do not have the time to fill in such an involved report. Certainly this point is not a primary reason for the physician's dereliction in duty. Nevertheless, it was suggested that the form be simplified as much as possible, thus encouraging the practitioner to fill it in and return it.

Looking into another reason for the neglect and failure in duty by the practitioner, the Committee was cognizant of the seemingly universal apathy, indifference, and unconcern about the present occurrence of venereal disease. Whatever its occasion, apathy can exert a profoundly deadening effect in which nothing is done, and nobody cares. In actuality in the present instance, it is an atmosphere of relaxation after victory. An inadequate number of guards were posted. Too prevalent was and is the attitude that syphilis and gonorrhea are diseases of the past. Perhaps because he could see for himself the profoundly dramatic benefits of penicillin, the physician was among the first to be lulled into inactivity. He was not alone; this was the general spirit. Then inertia of a body at rest set in. Because the physician is as dependent as the public upon official sources for information, or at least for confirmation that an epidemic is at hand, he may be late in becoming aware of the full impact of such an unexpectedly jolting message. Here lack of information might compound the inactivity. The remedy is obvious.

Failure of reporting venereal disease is also seen as a part of a general desuetude that has followed successful control of several communicable diseases. Their occurrence has been reduced to infrequency. In consequence, physicians have had less occasion to report and have got out of the habit of reporting.

Reviewing another possible reason for the practitioner's inadequate performance, the Committee explored the conjecture that many physicians may have become less on the alert for the signs and symptoms of venereal disease because it had faded into the medical background. As for younger members of the profession, because of penicillin therapy the importance of syphilis and gonorrhea in medical studies has decreased and gradually been overshadowed by what seems

to be more pressing problems. Dr. W. J. Brown of the Public Health Service has said that:

Seven thousand students were graduated from 82 medical schools [in 1961]. Yet few of these students had two hours or more of syphilology during their entire six to eight years' training. And fewer still ever saw a clinical case of infectious syphilis.

From its strictly clinical aspects, the consequences of this deficiency in medical education and training may be incomplete or missed diagnoses and inadequately managed cases. Before instituting treatment for a positive serology, it is essential to ascertain by history, examination and further tests the stage of the patient's syphilis and whether it is infectious.

Here again is another form of ignorance: inadequate clinical education, information and training, probably induced in part by the period of relaxation after the seeming conquest of venereal disease.

The final and perhaps most significant reason for the private practitioner's shortcomings in the management of venereal disease is his deficient knowledge and understanding about the epidemiology of the disease and the essential part that he plays in controlling it. It may be said at once that the physician has become an essential and key performer on the epidemiological team without being aware of it, without training and preparation for it, and without knowing much about the team. Many practitioners do not understand that much more than treatment for one patient is needed. They have not grasped the whole picture and seen their patient as just one link in a fast-growing chain of infection. Breaking that chain and stopping the epidemic requires that all contacts of the patients be located and treated. This is a job which by its very nature requires public health action.

It is obviously impossible to expect the clinician to undertake contact investigation. The tracing and investigation of contacts is an intricate task involving the application of specialized technics. There is, first of all, the problem of intimate human relations. In cases of infectious syphilis, for example, members of a patient's family should be examined. Arranging for this can develop into a sensitive situation with time-consuming familial problems. Furthermore, there is usually a feeling of guilt and fear on the part of the patient concerning his family, or job, or his social status, which inhibits him from revealing contacts or other secret information. It has been said that, though a patient may name many other contacts freely, often he will omit his steady sex partners in the mistaken belief that he is shielding them. Handling such problems, involving emotionally charged human relations, requires many more hours than the average physician can afford. It is a full-time job, requiring all the psychological acumen available to the investigator.

A second obvious drawback to the physician's attempting to follow up on a patient himself is that most persons suspect of syphilis are highly promiscuous and often geographically mobile. Especially are homosexuals said to be highly promiscuous and mobile individuals. Epidemiologic coverage of such a person's

contacts may extend hundreds, if not thousands, of miles; it may, according to the WHO, become world-wide. It is a virtual impossibility for a practicing physician to trace such sources to be sure that the chain of infection has been broken. In this area, the health departments alone may function adequately.

Currently, the New York City Health Department has available, through a Federal grant, the services of a highly skilled paramedical group composed of young college graduates recruited by the U. S. Public Health Service. After one year's training in the local health department to which they have been assigned, these young people begin their duties in investigation of contacts. They are readily available to private physicians for the interviewing and follow-up of patients, if the physician is willing to make use of their services.

The activities of the Health Department must be viewed as being complementary to the physician's approaches to venereal disease control. Public health measures can never supersede the private physician's practice, but they must be allowed to reinforce and supplement his knowledge. In the present effort to eradicate venereal disease, public health programs are as necessary as clinical practice. By their very nature, they are different, and one is as important as the other.

Yet all the skilled technics available to experts in public health will be to no avail unless they have the cooperation of private physicians. For if physicians alone cannot do all that is required to check the spread of venereal disease, neither can the Health Department. Alone each is powerless. Each needs the help and assistance of the other. Failure or refusal of private practitioners to cooperate with the Health Department blocks essential action and unwittingly contributes to the spread of venereal disease. Not only do the health laws require the reporting of these highly communicable diseases, but it is simply good medical practice.

In summary, the Committee, though in sympathy with the problems surrounding the reporting of a patient by a physician, was of the opinion that it could not be viewed as a matter of choice. It felt that the reporting of venereal disease and granting permission for interview of the patient by the Health Department must be accepted as standard procedures indicative of good medical practice.

#### RECOMMENDATIONS

Confining itself to the medical and health aspects of the current rise in incidence of venereal disease, the Committee recommends:

1. That the educational campaign on venereal disease be stepped up, both to the general public—with especial emphasis on teenagers—and toward the medical profession. In New York City this should include facts specially directed toward homosexuals concerning the risks and dangers of venereal disease. The public and profession should be informed, aroused, and alerted to the rekindlement of venereal disease in its midst. Knowledge and fervor were once combined to start effective action that brought control of venereal disease. It is time for a renewed attack.

2. That antivenereal disease programs, activities, and funds should be re-

stored at least to the level that will reverse the present upward swing of venereal disease incidence. Once the resurgence is controlled, they should be maintained at a level that would forestall any flare-up.

3. That the subject of homosexuality should be studied from a medical standpoint. It appears to be on the increase and more assertive. Yet society seems to be unprepared and uncertain how to cope with it. For a number of reasons, this disorder should be better understood. For present purposes concern about it is focused on its role in transmitting venereal disease.

4. That the epidemiological approach be vigorously applied to halt the re-surging venereal incidence. Venereal disease spreads readily; hence, stopping the spread becomes the first objective. A comprehensive attack on the accumulating reservoir of hidden infections which is the major source of spread includes: case detection; determination of stage and infectivity; treatment of the patient; and identification and treatment of contacts. Application of this approach requires the concerted effort of the Health Department, hospitals, private practitioner, and public. Each alone is almost powerless and ineffective to halt the spread. Together they can achieve it.

5. That the program of routine admission and outpatient serology be restored in hospitals, and that a system of complete and rapid reporting of the positive results to the Health Department be devised.

6. That steps be taken to have private clinical laboratories report all positive serologies for syphilis and tests for gonorrhea to the Health Department promptly.

7. That the key position of the private practitioner in the epidemiological approach be recognized. It is he who detects most cases. It is he who should determine the clinical stage and infectivity by history, clinical and microscopic examination. For this, he should not fail to obtain a darkfield examination. It is the private practitioner who administers treatment. He has two further important and essential duties: reporting the case, stage and infectivity to the Health Department; and granting permission for his patients to be interviewed for contacts. It is obvious that if the spread of venereal disease is to be stopped, the detected case must be treated and the contacts must be traced and identified. The easiest, if not the only means, for tracing contacts, is by information from the primary patient. But unless the physician is willing to cooperate and report the original case, it precludes any follow-up in tracing contacts.

Physicians must be reminded that time does not permit them to interview all of the contacts in most cases. For, to locate them and subject them to examination may cover hundreds, if not thousands, of miles. Clearly the scope of the task requires painstaking detective tactics involving much skill, time and money. Physicians should be apprised of the network of health forces available for this task, including the federal paramedical group now working with the City Health Department.

Unless the private practitioner permits his patient to be interviewed, the contacts will be undetected and venereal disease will continue to spread. This re-

fusal to allow the Health Department to conduct the essential interview blocks the entire course of epidemiologic action and permits the reservoir of infections to continue to increase. Thus, at several key points, the private physician performing his duties fully is indispensable to a control program of venereal disease.

8. That physicians be informed that reporting of cases and permitting interviews of patients by the Health Department are essential in control of venereal disease, and emphatically are good and approved medical practice. Indeed, reporting is required by law. Performance of these services is the physician's duty and responsibility. It does not infringe upon the rights of the patient or constitute a breach of professional privilege. Failure to perform this duty is unacceptable medical practice.

9. That medical societies and health departments should inform private practitioners of their key position in a venereal disease control program and should exhort them to discharge their duty and responsibility. Health departments should also keep the practitioners informed currently about the incidence rates.

10. That if persuasion and urging fail, medical societies should exert such pressure as is necessary to compel practitioners to perform this medical duty.

11. That the Health Department have adequate and accessible diagnostic facilities, particularly for darkfield examination, to aid the private practitioner; that it inform him of their availability; and that it report back to him such information obtained from the follow-up as he may need or desire.

The Committee concluded that syphilis is an easily diagnosable disease with highly effective treatment; that there are adequate public health methods available to stop its spread and that there are skilled personnel to apply these technics. If every person and organization would perform their functions and cooperate, it is reasonable to expect that syphilis and gonorrhea will once again approach eradication.

Once this goal has been reached, however, and the incidence rate has approached a minimum, this time there should be a holding operation that would keep it there.

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